PHASE I ENVIRONMENTAL SITE ASSESSMENT

Former Intermet Site / Lynchburg Foundry Site
1651 Concord Turnpike, Lynchburg, Virginia

PREPARED FOR:

City of Lynchburg Economic Development Authority and
United States Environmental Protection Agency
USEPA Brownfields Assessment Grant Number: # BF-96359401-0

MAY 21, 2021

Draper Aden Associates
Engineering • Surveying • Environmental Services

DAA Project Number: **B12188B-10HM**

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EXECUTIVE SUMMARY

The City of Lynchburg's Economic Development Authority (EDA) contracted Draper Aden Associates under the EDA's USEPA brownfields grant to perform a Phase I Environmental Site Assessment (ESA) for the former Intermet Site / Lynchburg Foundry property located at 1651 Concord Turnpike in Lynchburg, Virginia. Draper Aden Associates performed the Phase I ESA in general accordance with the scope and limitations of the ASTM International (ASTM) Practice E1527-13 and the USEPA All Appropriate Inquiry Rule in an effort to identify recognized environmental conditions (RECs) as defined by the ASTM standard. Additional regulatory file research was also included in the scope of services.

The subject property, owned by the City of Lynchburg, includes approximately 6 acres of vacant land previously occupied by the former Intermet Corporation in the 1990s and prior, the Lynchburg Foundry Company since at least 1907. The subject property operated as a foundry for over 110 years and as industrial use for over 135 years.

Draper Aden Associates conducted the site reconnaissance on January 14, 2021. A small portion of the northern part of the site is currently fenced and stockpiled soils, stone, brick and other construction materials were observed within the fenced area. Observations of the site exterior were limited by vegetative overgrowth (grass cover) and stockpiled materials in many areas. No evidence of a release or obvious impact to the subject property was observed during the site reconnaissance.

The subject property is located in an area of mixed use including industrial, railroad and residential properties. The site is bounded by industrial use properties such as the Lynchburg Foundry Company Lower Basin Plant complex north beyond Garnet Street, Westrock Converting Company (formerly Rock Tenn Company and Mead Corporation) to the south, the James River beyond Concord Turnpike in the east, and active CSX railroad tracks running along the western boundary of the property, which have been in use for over 50 years.

The regulatory and historical record identify likely petroleum and chemical use on site; however, there are gaps in the regulatory record and the much of the industrial activity occurred prior to regulatory documentation. Releases were documented on adjacent properties and the potential for impact to the subject property exists. As well, there is the potential for impact on the site from undocumented spills or releases from both on and off-site sources. This assessment revealed Recognized Environmental Conditions (RECs) from both on- and off-site sources. RECs include likely impact to soil, groundwater, and vapor from known petroleum releases as well as potential for likely undocumented releases or improper disposal on site from petroleum or hazardous substances used as part of historical operations. Fill from unknown sources may also be present. Surface and particulate migration of PCBs or other constituents of concern from the railroad and other nearby activities may also be contributing sources of impact associated with RECs although no documented releases were identified as part of this assessment. Further discussion regarding RECs, historical RECs, areas of concern and *de minimis* conditions, data gaps, and associated findings and opinions are provided in the body of this report.

1.0 INTRODUCTION

Draper Aden Associates was contracted by the City of Lynchburg's EDA to perform a Phase I Environmental Site Assessment ESA for an approximately 5.998-acre property located at 1651 Concord Turnpike in Lynchburg, Virginia. The Phase I ESA was completed under the EDA's USEPA Brownfield Assessment Grant.

Draper Aden Associates performed this Phase I ESA in general accordance with the scope and limitations of the ASTM E1527-13: *Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Process* and the United States Environmental Protection Agency (USEPA) All Appropriate Inquiry (AAI) Rule. The Phase I ESA included site reconnaissance, interviews with the property owner/key site manager, past property owner, and local government officials, as well as a review of practicably reviewable and reasonably ascertainable historical records and records of local, state and federal regulatory agencies, unless noted. Additional Virginia Department of Environmental Quality (VDEQ) file review was conducted as part of this assessment.

The subject property, adjoining properties, and surrounding/vicinity properties are depicted in Figures 1 through 4. Photographs of the site at the time of the site reconnaissance are presented in Appendix A. Historical records review documentation is presented in Appendix B. Regulatory review documentation is provided in Appendix C. Qualifications of project environmental professionals are presented in Appendix D. A review for controlled substances as defined by ASTM was not conducted by Draper Aden Associates. The results of the Phase I ESA are provided below.

1.1 Purpose

A Phase I ESA is intended to identify recognized environmental conditions (RECs) on a site, as defined in Section 3.2.78 of the ASTM standard, through a review of practicably reviewable and reasonably ascertainable information about the site, including a site reconnaissance, to satisfy one of the requirements to qualify for the landowner liability protections, that being the practice that constitutes "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" (42 USC §9601(35)(B)) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). The term REC means the presence or likely presence of hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment, (2) under conditions indicative of a release to the environment, or (3) under conditions that pose a material threat of a future release to the environment. If RECs are identified, the Phase I ESA report may indicate what additional activity is warranted to further evaluate the environmental conditions. The EDA intends to use the results of the Phase I ESA to help facilitate redevelopment of the property.

Draper Aden Associates prepared this document in accordance with generally accepted standards of environmental practice and in general accordance with the scope and limitations of the ASTM standard. The conclusions presented in this report are professional opinions based on

data described in this report, and are intended only for the purpose, site location, and project indicated. The conclusions presented in this report are based on the assumption that site conditions do not deviate from those observed during the study and described in this report.

This report is not an exhaustive study of potential environmental impact at the subject property and should not be interpreted as such. An evaluation of subsurface soil and groundwater conditions, vapor intrusion, radon, wetlands assessment, historical building assessment or other evaluation of environmental issues considered a business environmental risk as defined by ASTM were not performed as part of this assessment, unless specifically noted. An environmental lien search was not included in the scope of services.

A vapor intrusion survey was outside the scope of services; however, Draper Aden Associates considered the potential for vapor encroachment (ASTM E2600-15) as part of this assessment. A vapor encroachment condition (VEC) as defined by the standard is the presence or likely presence of chemical(s) of concern (COC) vapors in the subsurface of a target property caused by the release of vapors from impacted soil or groundwater either on or near the subject property. COCs include any chemical that is present in the subsurface environment that can potentially migrate as a vapor into the subsurface of the target property (e.g., petroleum compounds); however, COCs do not include naturally occurring gases such as radon associated with certain types of subsurface geology.

The results of this assessment represent a review of current ("current" in the context of this report refers to the date of the site visit) conditions based on practicably reviewable and reasonably ascertainable information and limited observations. Exceptions to, or deletions from, this practice are described in Section 8.0 of this report. A finding of RECs does not imply that an impact actually exists, but that more information may be warranted.

2.0 PROPERTY DESCRIPTION

2.1 Location, Legal Description

The approximately 5.998-acre subject property is located at 1651 Concord Turnpike in Lynchburg, Virginia, Parcel ID 04720005. A Site Location Map is presented as Figure 1. Based on the City of Lynchburg's ParcelViewer, the subject property is owned by the City of Lynchburg.

2.2 Site and Vicinity Characteristics

The subject property is located within the corporate limits of the City of Lynchburg, Virginia. The site and vicinity characteristics are presented on Figures 2 and 3. The approximately 6-acre, parcel is cleared of site structures and is currently used for surface storage of materials (i.e. construction debris). Discarded debris is also present on a small portion of the northern part of the property. The shape of the property is nearly rectangular with the long edge paralleling the James River to the north. The parcel is a thin strip of land running from northwest to southeast and whose northeastern and southwestern borders are the longest portions of the property. Property development in the vicinity of the site is a mix of industrial, residential, and railroad properties. Topographically, the site slightly slopes on a shallow grade to the east, and its western edge is the highest elevation. The historical City center is west of the subject property, with steeply sloping topography towards the James River. Garnet Street lies to the north and Concord Turnpike is east of the subject property; the site can be accessed from both roadways.

The Lynchburg Foundry Company Lower Basin Plant is located beyond Garnet Street to the north, and the James River is approximately 150 feet to the east beyond Concord Turnpike. The site is bordered by active CSX railroad tracks along the southwestern boundary and the WestRock Converting Company to the south. Adjacent property to the south includes a former warehouse building, fronting Garnet Street, associated with prior site use.

2.3 Current Use of the Property

The property includes cleared, grass covered land with a fenced area that appears to be used for storage of construction materials. Observations indicate that the property is currently vacant, although material and debris, such as stockpiles of soil, stone, brick and other materials are present within a fenced area on-site. A dumpster containing mostly wood was also observed within the fenced area. No other site uses are known.

2.4 Description of Structures, Roads, Other Improvements on the Site

The subject property includes a chain-link fence around the central portion of the northern part of the property where material and debris are stored. However, access through the entryway of the fence appears to be open to any personnel or trespasser. The site access is otherwise unrestricted. Based on historical documents reviewed, the former historical buildings on-site

were constructed beginning as early as 1885. Currently only cut bollards at the entrances from Concord Turnpike remain. The property is accessible by entranceways from Garnet Street and Concord Turnpike as shown in Figure 2.

This area of Lynchburg is serviced by public water, sewer, and electricity. Electrical and water utility structures were visible adjacent to and near the site. The City of Lynchburg's ParcelViewer showed that a water main is within the property boundary and extends across the northernmost end of the property. Four fire hydrants are located on the boundary of the site on Garnet Street and Concord Turnpike. A stormwater gravity main also extends along the property's southern border between the property boundary and the railroad tracks. No information was found regarding historical utilities, although an oil house was depicted on historical mapping (See Section 4).

2.5 Current Uses of the Adjoining Properties and Surrounding Properties

Current Uses of Adjacent Properties

Adjacent properties are city-owned or railroad property. Figure 2 depicts adjacent properties and current adjacent property uses are detailed below:

North and East

- A former Lynchburg Foundry property is located adjacent to the north, separated by the intersection of Garnet Street and Concord Turnpike. The James River forms the eastern property boundary, separated by Concord Turnpike.

South and West

- An active railroad line (CSX Railroad, current) extends along the southwest boundary. WestRock paper mill (active) adjoins the southeastern subject property boundary.

Current Uses of Surrounding/Vicinity Properties

The property immediately adjacent to the railroad tracks (southwest boundary) is City owned vacant property, previously owned by the former Lynchburg Foundry Company and zoned for heavy industrial. Residential properties are adjacent to the heavy industrial-zoned properties. Past the City-owned parcels to the northwest of the subject property are commercial properties and downtown Lynchburg, which originates approximately 0.5 miles from the subject property. Potential RECs associated with current and former uses of adjoining and surrounding properties (if any) are identified and discussed in Section 4.0.

3.0 USER PROVIDED INFORMATION AND SITE DETAILS

The City of Lynchburg EDA is the current User of this Phase I ESA. Ms. Marjette Upshur, Director, City of Lynchburg Office of Economic Development and Tourism, representative for the City and Brownfields Grantee representative, was asked to complete the User Questionnaire adapted from ASTM 1527-13. Information received from the User along with information obtained from records research is included below.

3.1 Ownership Record Review

The City of Lynchburg has owned the property since 2009. Based on Lynchburg's ParcelViewer, the previous owner prior to the City of Lynchburg was Lynchburg Foundry Company, and prior to the foundry, the following entities had owned the property (in order from most recent to earliest ownership): Mead Corporation, Woodward Iron Company, and Lynchburg Foundry.

3.2 Environmental Liens or Activity and Land Use Limitations

An environmental lien search is not implied nor performed by Draper Aden Associates as part of this assessment. Based on information reviewed as part of this assessment and interviews with the User, no environmental liens or activity and use limitations (AULs) were found.

3.3 Specialized Knowledge

Draper Aden Associates completed a Phase I ESA under the EDA's Brownfield's Grant program for the property located at 1800 Garnet Street. This property was part of the former foundry operations and is separated from the site by a rail line. Information obtained as part of that Phase I ESA is relevant to the subject parcel due to the property's collective history as the Lynchburg Foundry. This specialized knowledge was used in drawing opinions and conclusions associated with this assessment. No other specialized knowledge was provided to DAA.

3.4 Commonly Known or Reasonably Ascertainable Information

No additional information was provided to Draper Aden Associates regarding RECs in connection with the subject property.

3.5 Valuation Reduction for Environmental Issues

The value of a property is based on current fair market value. The role of the Phase I ESA is to provide information regarding RECs that may be used in the determination of fair market value. There is the potential that discovery of historical environmental issues, conditions or liens, or other RECs during this Phase I ESA could affect the value of the property. The property is not on

the market but is being considered as part of overall redevelopment planning along the Concord Turnpike corridor.

3.6 Owner, Occupant, Key Site Manager/Property Manager Information

The City of Lynchburg is the recorded property owner. Interview with the User is provided in Section 6.

3.7 Reason for Performing a Phase I Review

Reasons for performing the Phase I ESA are as noted below.

- USEPA Brownfields Grant recipient. The Lynchburg EDA and City of Lynchburg desire to support property redevelopment that will encourage new investment, attract and retain workers, and restore the historic charm of the area.
- To facilitate sale and/or development of the subject property.
- To qualify for landowner liability protections, that being the practice that constitutes "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" [42 USC §9601(35)(B) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)], if applicable.

The User ultimately intends to use the results of the Phase I ESA to facilitate sale and/or development of the subject property.

4.0 RECORDS REVIEW

4.1 Standard Environmental Review

Draper Aden Associates contracted with ERIS to complete the regulatory database search and to assist parties seeking to meet the record search requirements of the ASTM standard. The ASTM-defined minimum search distances were used in evaluation of the subject property. The ERIS *Database Report* is presented in Appendix C. Upon review of the ERIS report, Draper Aden Associates identified and summarized the following information pertaining to the subject property, adjacent and off-site properties, and unmappable orphan properties.

Subject Property

The subject property was not listed in any of the regulatory databases searched by ERIS. However, some database listings were incorrectly located by ERIS as adjoining and are possibly listed on the subject property. The subject property was previously part of the larger Lynchburg Foundry complex. Currently, the bulk remainder of that property is located to the north beyond Garnet Street and the building to the west beyond the CSX tracks (Figures 2 and 3). The foundry property is listed on the Leaking UST, UST/AST storage, ERNS, FINDS/FRS, FTTS Admin, TRIS, and the RCRA NonGen/NLR databases. Foundry operations have ceased, and the subject property has been cleared.

Due to both the subject property and the northern adjoining property historically being portions of the former Lynchburg Foundry Lower Basin and listed on the ERIS Database Report without a street number, database listings for the former Lynchburg Foundry Lower Basin cannot be eliminated from the cleared subject property. Database listings associated with the Lynchburg Foundry were considered to possibly be associated with the current subject property unless specific location identifiers were available. The location of operations and items such as USTs/ASTs or other chemical storage is generally inferred from the historical record (Sanborn maps) or unknown. Database listings for the Lynchburg Foundry Lower Basin at Garnet Street and Concord Turnpike are provided below:

- ***Garnett Street & Concord Rd***
- ERNS – NRC 86204 – Reported diesel tank (AST) leaking due to unknown cause. Release reached the James River. Response actions were taken to pump the tank and assessment was planned. *Note: no documentation of site assessment was identified associated with this release.*
- .***Lynchburg Foundry Lower Basin at Garnet St & Concord Tnpk***
    - RCRA Non-Generator – VAD000820514 – Hazardous waste generator from 1980 until 1999 for handling/disposal of barium, cadmium, lead, and quenching wastewater treatment sludges from metal heat treating operations in which cyanides are used in the process. Generator violations were recorded.

- AST (1 active) – Facility ID 7006931 – 1 (15,000-gallon) fuel oil AST currently in use was installed January 1, 1992 (likely on adjacent property to the north)..
- UST (5 inactive) – Facility ID 7006931 – 1 (1,000-gallon) kerosene UST was installed April 23, 1978 and removed from ground March 1, 1989; 1 (2,000-gallon) gasoline UST was installed April 23, 1978 and removed from ground March 1, 1989; 1 (10,000-gallon) unknown contents UST was installed April 23, 1966 and removed from ground December 5, 1988; 1 (10,000-gallon) heating oil UST permanently out of use was installed April 23, 1970; and 1 (20,000-gallon) heating oil UST permanently out of use was installed April 23, 1976.

- ***Lynchburg Foundry Co Lower Basin Plant at Garnet St & Concord Tnpk***
  - FINDS/FRS – Federal Registration identification - ID 110002469597 for operations under gray and ductile iron foundries. https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110002469597
  - FTTS Admin – Federal Tracking System under the Toxics Control Act - FTTS Administrative Case Listing EPCRA-043 was issued October 31, 1990 and closed March 21, 1991. Violation code EFR was noted (water and fuel hauler). No details regarding the violation were provided. TRIS – FRS ID 110002469597 – Toxic Chemical Release Information System reported from 1987 until 1994 under Intermet Foundries Inc. including: methanol, 1,1,1-trichloroethane, manganese, manganese compounds, phenol, aluminum oxide (fibrous forms), chlorine, copper, chromium, zinc compounds, nickel, and methylenebis (phenylisocyanate). http://oaspub.epa.gov/enviro/fac_gateway.main?p_regid=110002469597
- ***Lynchburg Foundry Co. 1 Garnet St. and Concord Rd.***
  - MLTS – Docket 3020160 – Materials Licensing Tracking System (MLTS) License 45-17464-02 dated February 17, 1989 and expired February 28, 1994. No further renewals were identified.

See also the discussion regarding the listings for the Lynchburg Foundry Lower Basin Plant complex under Section 4.2 Other Records Review.

Adjacent Properties

The subject property was previously part of the larger Lynchburg Foundry complex. Currently, the bulk remainder of that property is located to the north beyond Garnet Street and the building to the west beyond the CSX tracks (Figures 2 and 3). Multiple adjacent properties were identified in the regulatory databases searched by ERIS based on mapping. Database listings for adjoining properties are provided below:

- ***Lynchburg Plant at Garnet St & Concord Tnpk***
  - LST (closed) – PC 1992-0288 – Leaking tank release reported August 9, 1991 and received risk-based closure January 20, 2004. Further information confirming the release location on the adjacent Lynchburg Plant property opposite Garnet Street was provided by DEQ in Section 4.2.

- ***CSX Site near Garnet St and Rock Tenn – CSX yard near Garnet St and Concord Tnpk***
    - Spills (closed) – IR No 2012-L-3391 – Petroleum spill reported petroleum (oily sheen) surface spill as a threat to groundwater, later assigned PC 2010-2241 and moved to remediation (closed). The incident summary reported a contractor working on City's CSO project dug through layer of soil and oily substance began to seep out of excavated area and into trench. The encountered water table was reported as high due to recent rain events. The site where the incident occurred is on CSX property and area has history of industrial use, near Garnet Street behind Rock-Tenn property. The listed address in the ERIS report was 2151 Concord Turnpike; however, information related to the release locates the incident within the CSX right of way adjacent to the subject property.
    - LST (closed) – PC 2010-2241 – Release reported May 20, 2010 and received closure February 16, 2012.
- ***Former Lynchburg Foundry Company Storage Building – 1800 Garnet Street***
    - FINDS/FRS – ID 110070790118 – Brownfields site May 18, 2020; https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110070790118
    - Brownfields – Property ID 242615 – City of Lynchburg EDA FY 2018
- ***Virginia Customs / William Agee (owner) – 1631 Concord Turnpike***
    - ERNS – NRC 790153 – Emergency response reporting a dumping incident report March 7, 2006. The incident summary reported that the owner of the shop was dumping unknown amounts of paint, paint thinner and other chemicals into the parking lot stormwater drain.
    - Spills – IR No 2006-L-0205 – Incident reported March 7, 2006 and closed March 8, 2006. The incident was closed and deemed no substance to complaint.
- ***WestRock Converting Co – 1801 Concord Turnpike***
    - AST – Fac ID 7001946 – 2 (3,000-gallon) lube oil ASTs dismantled were installed January 1, 1955; 1 (30,000-gallon) fuel oil AST dismantled was installed January 1, 1975; 1 (2,000-gallon) lube oil AST currently in use was installed April 1, 2001; and 1 (5,000-gallon) lube oil AST currently in use was installed April 1, 2001.
    - UST – Fac ID 7001946 – 1 (500-gallon) diesel UST currently in use was installed March 17, 1995 and 1 (550-gallon) diesel UST closed in ground was installed June 26, 1970 and closed May 1, 1981.
    - RCRA CESQG – VAD980713150 – Hazardous waste generator from 1986 until 2020 for handling/disposal of ignitable waste, corrosive waste, benzene, tetrachloroethylene, methanol or methyl alcohol. Generator violations were recorded.
- ***Rock Tenn Company – 1801 Concord Turnpike***
    - Delisted Tank – Fac ID 7001946 – UST delisted August 7, 2016. 1 active UST, 1 inactive, 2 active ASTs, and 3 inactive ASTs.
    - SWF/LF (closed) – Permit SWP232 Industrial landfill – closed October 13, 1991. Permit SWP511 Industrial landfill permit was revoked and closed August 27, 2015. The location of the landfill on the Rock Tenn (now Westrock) property is unknown.

    - Spills (25 closed) – 25 Spills listings were identified at the Rock Tenn Company by the ERIS database search. All spills listings are reportedly closed.
- ***Rock Tenn Lynchburg Mill – 1801 Concord Turnpike***
    - LST – PC 2005-7079 – Leaking tank release reported April 26, 2005 and received closure October 19, 2010.
- ***Seven Hills Paperboard Process Water Overflow – 1801 Concord Turnpike***
    - Spills – IR No 2015-L-2938 – Incident reported May 29, 2015 and closed September 17, 2015. The incident summary reports approximately 2,000-3,000 gallons of process water from a paper machine was discharged into the James River for approximately 15 minutes. Diluted chemicals in the released process water include triphenalmethane, verona basic green CAS# 569-64-2, acetic acid CAS# 64-19-7.

The WestRock Converting Company (formerly Rock Tenn Company, Rock Tenn Lynchburg Mill, and Seven Hills Paperboard) located at 1801 Concord Turnpike is located cross-gradient with respect to groundwater flow and topographically downgradient with respect to surface flow. Based on the topographic downgradient relation to the subject property, a release from this facility is not expected to impact the subject property. However, vapor encroachment from a release and/or spills at this facility cannot be eliminated based on the number of spills listings (i.e. dumping chemical and materials) and likelihood for undocumented releases at the facility. Although all 26 spills listings and LST for the facility location are closed, regulatory closure does not preclude that a site may be reopened in the future should new data become available. Additionally, no information was provided regarding the exact location of the closed industrial landfill and proximity to the subject property.

Vicinity Properties

The ERIS report identified twelve (12) additional properties within the ASTM-defined minimum search distances that appeared in multiple regulatory databases. A RCRA CORRACTS site (Griffin Pipe Products Co., Map ID 18) was identified as upgradient approximately 0.91 miles from the subject property, however the site is located across a local groundwater sink, Blackwater Creek. Based on this and distance from the subject property, the site is not considered a REC. An additional LST site (Mead Pump Station, Map ID 13) was identified as downgradient approximately 0.14 miles from the subject property. Based on the closure of the listing and location downgradient from the subject property, the site is not considered a REC. Regulatory closure does not preclude that the spill could be considered a REC in the future should additional information be provided.

The remaining ten (10) properties are listed on the database in the below table. A summary of the properties' distance, direction, and relative elevation from the subject property, as well as the databases in which the properties were found, are listed in the below table. The Map ID that is referenced in the ERIS Database Report is included in the below table for reference in both this report and the ERIS Database Report in Appendix C.

Property (Map ID)	Distance, Direction, and Elevation from Subject Property (miles)	Database Reference	Status	Databases
CSO – Lynchburg Water Resources (6)	0.11, West, Higher	2019-W-0508	Closed	Spills
Florida Avenue Landfill (7)	0.14, West, Higher	SWP344	Closed	SWF/LF
Valve & Actuation Services LLC (9)	0.16, West, Higher	VAR000015198	No Violations	RCRA Non-Gen
Goldner Herman Co Inc (10)	0.16, West/Northwest, Higher	VAR000012948	No Violations	RCRA Non-Gen
Myers & Rhodes Equipment (11)	0.24, West/Northwest, Higher	7000922	1 (2,000-gal) UST RFG*	UST
Non-responsive based on revised scope. (12)	0.25, Southwest, Higher	PC 2014-2321	Closed	LST
Non-responsive based on revised scope. Non-responsive based on revised scope. (14)	0.30, Southwest, Higher	PC 2000-2055	Closed	LST
Former Trinity Methodist Church (15)	0.48, West/Southwest, Higher	PC 2009-7034	Closed	LST
Hill Top Homes LLC Property (16)	0.48, West/Southwest, Higher	PC 2011-2118	Closed	LST
Grace Street Fire Station (17)	0.50, West/Southwest, Higher	PC 1992-1233	Closed	LST

*Notes: RFG = removed from ground

Two additional properties are listed within the regulatory search distances established in ASTM 1527-13 but would most likely not have any specific environmental impacts on the subject property. Properties that are lower in elevation than the subject property (Mead Pump Station) are considered hydrologically downgradient or across a local groundwater sink (Griffin Pipe Products Co.) from the subject property and are not anticipated to impact the subject property due to groundwater or surface water flow.

Those properties and incidences listed in the above table have the potential for contaminant migration toward the subject property. However, the landfill, RCRA generators, petroleum releases and spills are all identified as closed by VDEQ. Based on the distance, status of each release, and relative nature of the releases (the nearest LST listings are residential and anticipated to be a result of viscous heating oil) these sites are not considered RECs with the potential to impact the subject property. However, regulatory closure does not preclude that a site can be re-opened in the future should new data become available.

Other vicinity properties within the regulatory search distances established in ASTM 1527-13 identified in the regulatory databases searched by ERIS are discussed in the Orphan Sites section below.

Orphan Sites

Unmappable orphan properties, those that have poor or inadequate address information, were also reviewed. Due to the limited information available for review, the minimum search distance for these orphan sites was limited to the site and adjoining properties. Twenty-four (24) unplottable sites were identified in the ERIS Database Search. One (1) site listed in the ERNS database located "Near Garnet St in Lynchburg" is related to the adjacent property closed Spill

listing (IR No 2012-L-3391) noted in the section above for the CSO Site near Garnet St and Rock Tenn – CSX yard near Garnet St and Concord Turnpike. Further discussion for this listing is provided with PC 2010-2241 in Section 4.2.

One (1) site listed in the Spills database (IR No 2002-L-0180) located in the "CSX Railyard Concord Turnpike" was reported closed. The incident summary detailed diesel fuel product released from a glass sight gauge/meter in the engine compartment of a locomotive in the yard. The release was reported contained, with no waterways affected, and clean up contractor (Enviro Clean) was called to handle the spill. Enviro Clean contractor reportedly vacuumed up all affected soil and product within locomotive. It was reported less than 100 gallons were released. A summary letter of clean up actions was reported to follow. Further discussion of the railroad industry is included in Section 4.4.2, Historical Use – Adjacent Properties.

4.1.1 Activity and Use Limitations (AULs)

The ERIS database search (Appendix C) provided no indication of AULs as defined by ASTM 3.3.1 for the subject property. Local government officials did not indicate knowledge of any AULs for the property since purchase (Section 6.2).

4.2 Other Records Review

DEQ's Virginia Environmental Geographic Site (VEGIS) was used to confirm the information presented in the ERIS Database Report. A copy of the VEGIS map is included in Appendix C.

Information A Freedom of Information Act (FOIA) request was submitted to VDEQ January 12, 2021 for information related to the subject property and to identify if files exist for adjacent and nearby properties. A FOIA request was also submitted to the US EPA for records associated with federally based regulatory listings. US EPA files have not been received.

Lynchburg Foundry Lower Basin Plant

Water Permit (VA0003310) files were returned for the Lynchburg Foundry Lower Basin Plant as part of the FOIA request. The files returned from DEQ are consistent with the ERIS Database Search and have been included in Appendix C.

A pollution complaint (PC 2010-2241) was filed May 20, 2010, for a free phase petroleum release in a utility excavation on CSX property adjacent to the subject property, approximately 100 feet southwest of the subject property. The source was not confirmed, but potential sources of petroleum were cited in a Site Characterization Report (provided in Appendix C) prepared for the incident. The potential sources identified in the SCR include a possible release from former ASTs on the southwest side of the warehouse building (see Section 4.4.1), or a pinched pipeline possibly located on the subject property due to a recent utility project that might have connected the ASTs at the warehouse building to a 20,000-gallon diesel UST on former

Lynchburg Foundry property southeast of the subject property. Either source could potentially have resulted in impact to the subject property.

Soil and air sampling were conducted as part of initial abatement activities in 2010, soil and groundwater samples were evaluated as part of subsequent site characterization, and groundwater monitoring was conducted for four quarters following site characterization on the adjacent property. Soil sampling revealed benzo(a)pyrene levels greater than VDEQ Voluntary Remediation Program (VRP) based Tier III Screening Levels in place at that time for Commercial/Industrial properties (0.49 mg/kg vs 0.21 mg/kg) and Total Petroleum Hydrocarbons – Diesel Range Organics (TPH-DRO) greater than VDEQ definitions of fuel oil saturation (13,000 mg/kg vs. 12,000 mg/kg). An air sample of trench gases was collected during initial abatement, and Semi-Volatile Organic Compounds (SVOCs) and VOCs were not detected. Ambient air monitoring was conducted using a photoionization detector (PID) during site work and throughout construction operations. The pollutant complaint was closed by VDEQ on February 16, 2012, and the VDEQ closure letter stated that vapors no longer appear to be a risk. Groundwater results monitored over four quarters indicate the presence of naphthalene greater than the Tier III screening level for a worker safety if in contact with the aquifer (last reading of 2.3-5.6 ug/L vs. 0.796 ug/L). A groundwater sampling event associated with site characterization noted groundwater results where 2-methylnaphthalene, in addition to naphthalene, was reported to be greater than the VRP Tier III screening level for construction workers in a trench (210 mg/L vs. 58.83 mg/L for 2-methylnaphthalene, 4.8 mg/L vs. 0.80 mg/L for naphthalene). Naphthalene and 2-methylnaphthalene were also observed in soil samples, but at concentrations less than the VRP-comparative screening levels. In summary, a suite of VOCs and SVOCs were observed in soil and groundwater on the adjacent property and believed to be the result of a release of degraded diesel fuel. Groundwater elevations measurements from this incident indicate that groundwater should flow southeast, away from the current subject property.

Though an attempt to remove free product was made, not all material was removed. The PC was closed by VDEQ based on soil vapor, groundwater results, and evaluation of potential risk to nearby receptors. It was noted that land adjacent to this incident may be impacted, and the Site Characterization Report recommends "that adjacent property owners evaluate potential petroleum sources on their respective property" (AECOM, 2010). The Initial Abatement Report, Site Characterization Report, and pollution complaint closure letter have been included in Appendix C. This closed pollution complaint is considered a REC based on the proximity of the incident to the subject property, the possibility that the petroleum source may originate on the subject property, and the existence of residual impact after closure of the complaint may impact the subject property.

Files for PC 1992-0288 were returned from the northern adjoining Lynchburg Foundry property across Garnet Street as part of the FOIA request, and previously noted as a possible source in the PC 2010-2241 SCR described above. The PC 1992-0288 was filed August 9, 1991 for a former 20,000-gallon diesel Leaking Underground Storage Tank (LUST). The release was described in the original SCR performed by Geotechnical and Environmental Services (GES) November 1,

1991 as No. 2 fuel oil (diesel). The investigative area is part of the Lower Basin Plant bound to the south by Garnet Street and to the north by the northern extent of the heat treat building. The release was determined during drilling performed around the tank as part of a site assessment (cause of original site assessment was not determined in files provided) where impacted soils and shallow groundwater were encountered. A soil sample collected at a depth of 15 to 17 feet while installing a monitoring well (MW-4) had a TPH concentration of 23,450 mg/kg. A groundwater sample collected from the MW-4 had a TPH concentration of 357.6 mg/l. GES documented the presence of TPH, benzene, toluene, ethylbenzene, and total xylenes (BTEX) impact in soil and groundwater at the site. Figures of sample locations provided in the November 1, 1991 SCR in Appendix C. Although the tank and impacted site soils were reported as removed from the site, the date and documentation of the tank and impacted soil were removed was not identified.

An SCR performed by Virginia Geotechnical Services, P.C. (VGS) dated December 8, 1994 and subsequent Addendum report performed by Professional Services Industries, Inc. (PSI) dated August 25, 1995 and a risk assessment addendum to the SCR dated October 16, 1996 were prepared to provide additional information pertaining to site assessment, risk assessment, and remediation assessment. The assessments revealed detectable concentrations of TPH and polynuclear aromatic hydrocarbons (PAHs) found in site soils and groundwater. Free product was also observed in a number of the wells. However, PSI determined that the residual contaminants were not found to constitute a potential risk to the identified receptors (i.e. human health or environmental receptors such as the James River). PSI proposed the implementation of a quarterly monitoring program for groundwater and remediation of an estimated 5,700 cubic yards of petroleum impact soils.

A Corrective Action Plan (CAP) was implemented on May 17, 1999 at the request of DEQ as a remediation strategy for removal of the free-phase petroleum at the site. Subsequent quarterly reports were submitted for 1999 and 2003, until the remedial endpoint of 0.01 feet of free product in the monitoring wells was maintained on-site throughout the final quarter. DEQ concurred in a February 20, 2004 PC closure letter that free product levels in monitoring wells met endpoints as required by the CAP. The residual phase petroleum results in soil (ranging from 8,867 mg/kg to nondetect for TPH) were not considered to pose a risk for the industrial use site unless disturbed by future excavation. Since the area is serviced by City water groundwater was not anticipated to pose a risk to receptors. Although dissolved phase petroleum has been determined entering the James River through impacted groundwater at the site, there was no documented impact to the river. Vapor was also not considered a risk at the site since the release was not made up of highly volatile constituents. The Initial Abatement Report, Site Characterization Reports, Corrective Action Plans and pollution complaint closure letter have been included in Appendix C. The information provided by DEQ is consistent with the ERIS Database search LST listing at Lynchburg Plant at Garnet Street and Concord Turnpike.

WestRock Converting Company

Air Permit (No 30188) files, Solid Waste Permit (SWP No 232, 344, 346, and 511) files, RCRA Waste Generator (VAD000820514, VAD980713150, and VAD988222949) files, and Water Permit (VAR050435 and VAR050524) files were returned for the southern adjacent Rock Tenn property located at 1801 Concord Turnpike as part of the FOIA request. The files returned from DEQ are consistent with the ERIS Database Search and have been included in Appendix C.

4.3 Physical Setting Sources

In accordance with ASTM E1527-13, a current U.S. Geologic Survey (USGS) 7.5-minute topographic quadrangle map was used to identify general site conditions and topography. To better evaluate the site relative to environmental conditions, a soil survey of the subject property, a geologic map of the area, and flood maps were also reviewed to evaluate the physical setting of the subject site and vicinity as described below (Physical Setting Report in Appendix C).

4.3.1 Topographic and Flood Map Review

According to the 2020 USGS Lynchburg, Virginia, 7.5-minute topographic quadrangle maps (Appendix C), the subject property is situated at approximately 506 feet above mean sea level. The topography of the subject property slopes downward to the northeast towards the adjacent Concord Turnpike on the subject property's eastern border. Topography in the area continues to slope to the north-northeast toward the James River.

Storm water likely flows along the topographic gradient and flows northeast towards Concord Turnpike at the eastern boundary of the subject property. This is consistent with site observations. Surface and stormwater likely infiltrate the surface as sheet flow. A FEMA FIRMette (Appendix C) including Flood Map numbers 51031C0025D, 51009C0395B, 51019C0245D, and 51011C0075C shows that the subject property is within the hazard area where a 0.2% annual chance of flooding can occur. The ERIS Physical Setting report, which includes a physical setting source summary, confirms this assessment.

4.3.2 Regional and Local Geology

The subject property is located within the Piedmont Physiographic province of Virginia, which includes broad rolling hills and moderate slopes. According to the Virginia Division of Mineral Resources' Publication 174, the subject property sits on the Ashe Formation with a primary rock type of biotite gneiss. These formations tend to consist of biotite schist and gneiss, feldspar, quartz, and granitic clasts with local occurrences of quartzite, impure marble, calcareous gneiss, and amphibolite. These rock types do not indicate karst features. The geology of the property can also be characterized as Alluvium according to *Geology and Mineral Resources of the Lynchburg Quadrangle, Virginia* (Appendix C). Alluvium is unconsolidated materials typically deposited by a body of running water. The James River is approximately 150 feet to the

northeast of the subject property, and flooding could result in Alluvium deposits at the site. The composition of alluvium is typically indeterminate; however, given the geology of the surrounding area and the lack of karst features in the area, soluble rocks are not likely present.

Assumed groundwater flow beneath the subject property is northeast towards the James River. This general characterization of groundwater flow is based on an assumption of relatively simple subsurface aquifer conditions and that the James River acts as a primary control of local groundwater flow. Facilities located northeast of the subject property are lower in elevation and are therefore considered unlikely to have an impact on the subject property. Facilities located cross-gradient to the site are also not likely to result in migration toward the subject property. Groundwater flowing from properties northwest of the subject property may impact the property because these adjacent and vicinity properties are at higher elevations and groundwater likely flows to the James River.

4.3.3 USDA Soil Survey

The site soils underlying the subject property are identified as Urban Land. The Urban Land map unit indicates that the original soils have been disturbed and that buildings and/or pavement cover a significant portion of the land. (USDA NRCS Web Soil Survey).

A NRCS soil map of 1651 Concord Turnpike and descriptions of each soil type are presented in Appendix C. The potential for fill from unknown sources cannot be eliminated and may alter subsurface migration via water or vapor.

4.4 Historical Use Information

The historical site uses as described below was based on review of information presented in the various practicably reviewable and reasonably ascertainable historical resources evaluated and referenced in Section 9.0 and located in Appendix B, including aerial photographs dated 1947 through 2018, historical topographic maps dated 1944 through 2016, Sanborn maps dated 1885 to 1973, and city directories dated 1935 through 2021. Interviews conducted during this assessment were also used to assist in the understanding of previous uses of the subject property and surrounding area.

In some instances, sources could not be identified at 5-year increments as required by the ASTM 1527-13 standard. This represents a data gap since site-specific development/use could not be confirmed over these time periods based on historical documents available and the verbal history obtained during interviews. However, this data gap is not considered to be significant based on the available information reviewed. In addition, some of the property boundaries marked by ERIS on historical maps deviated from the actual property location due to inaccuracies in scale of the historical maps. The historical maps were still used, and professional judgment was applied to account for these discrepancies.

4.4.1 Historical Use – Subject Property

The following historical use summary for the subject property is based on information referenced in the following table and as noted above, as well as information from a site reconnaissance discussed in Section 5.0.

Summary of Subject Property Historical Use

A summary of historical site uses as noted in the historical record reviewed is outlined below.

Year (Source)	Use
1885* (Sanborn Maps)	A lumber yard and sumac warehouse and office are depicted on the southern end of the subject property. The Richmond and Alleghany railroad and the James River and Kanawha Canal are depicted transecting the southern portion of the property. Mapping does not appear to be provided for the northern portion of the subject property.
1890 (Sanborn Maps)	Same as previous map, however a grain elevator and vacant building structure have replaced the lumber yard at the southern end of the subject property. A Cecile Canning Works is located on the southernmost boundary lines mostly adjacent. Lynchburg Spoke Works steam dryer, engine room, dwelling, office and storage house is location on the northernmost portion of the subject property along Concord Turnpike. Bridge Road is depicted transecting the northern portion of the site below the Lynchburg Spoke Works.
1895 (Sanborn Maps)	Old foundation of the sumac warehouse is depicted on the southern portion of the subject property, and the grain elevator and vacant building have been raised. Cecile Canning Works on the southernmost boundary is noted as closed. The former Lynchburg Spoke Works buildings and engines are noted "to be sold" and portion south of the buildings as vacant. A water tank is depicted north of the engine building and west of the dwelling. Bridge road is no longer depicted transection the northern portion of the site.
1902 (Sanborn Maps)	The Lynchburg Plow Co. is located on the northern portion of the site, with multiple foundry buildings including: a machine shop, painting room, grinding and polishing room, two main foundry buildings, two cupolas, a core oven, and engine shop and pattern storage. Water tanks are noted on the northeast corner of the site in the wheel house. The southern portion of the site remains unchanged from 1895 maps.
1907 (Sanborn Maps)	The Lynchburg Plow Co. buildings on the northern portion of the site are essentially unchanged from the 1902 maps. The Lynchburg Foundry Co. is located on the central portion of the site with multiple foundry buildings including: a machine shop, blacksmith, a crane, engine room, clay shed, main foundry building with core ovens, casting pits, cupolas, cleaning room, dipping rooms, and pattern storage. Seven fire hydrants are noted throughout the subject property.
1944, 1950 (Topographic Maps)	No structures are depicted on the subject property.

Year (Source)	Use
1945, 1950, 1955, 1960 (City Directories)	Lynchburg Foundry Co. (plant) was listed on "Concord Road" or "Concord Turnpike" without a street number.
1947, 1952, 1959, 1962, 1977** (Aerial Maps)	The building structures depicted on-site appear to be in the same configuration as the 1907 Sanborn Maps; however, the resolution of the aerial maps is poor and details are indiscernible.
1951, 1955 (Sanborn Maps)	The building configuration in the south-central (Pipe Foundry) portion of the site appears changed and expanded from the 1907 Sanborn Maps; however, the same foundry elements and rooms from the 1907 map are depicted on-site. Rail is depicted transection the southern tip of the property towards the center running southwest to northeast on-site. A wood silo and carpenter shop are depicted on the southernmost portion of the site.
1963, 1968, 1977, 1978, 1984 (Topographic Maps)	The site appears in the same building configuration as the previous maps.
1964, (City Directories)	Lynchburg Foundry Co. (plant) is listed at 1701 Concord Turnpike.
1965, 1967, 1971, 1972, 1973 (Sanborn Maps)	An oil house is depicted at the northeastern boundary at the central portion of the site along Concord Turnpike. A rail spur is also identified on site. See Figure 4 for an overlay of the 1967 Sanborn map.
1967 (Deed)	Plat of property from the deed in Book 420, Page 359, indicates the northeast boundary of the property runs along Concord Turnpike and the north boundary abuts Garnet Street (see Appendix A). The Lynchburg Foundry Co. complex includes the property north of Garnet Street. The northeast corner of the site at Concord Turnpike and Garnet Street was to be conveyed to the City of Lynchburg. Rail is depicted transection the southern tip of the property towards the northern tip of the property running southwest to northeast on-site. A city gas meter house is depicted at the northern portion of the site along the northeastern boundary, along Concord Turnpike. A gate house is depicted next to the oil house at the northeastern boundary at the central portion of the site along Concord Turnpike.
1970, 1975, 1980, (City Directories)	Lynchburg Foundry Co. – Div of Woodward Iron (plant) is listed at 1701 Concord Turnpike.
1982, 1994 (Aerial Maps)	Buildings on the subject property appear to be in the same configuration as the 1973 Sanborn Maps.
1985, 1990 (City Directories)	Lynchburg Foundry is listed at 1701 Concord Turnpike.
1995 (City Directory)	Intermet is listed at 1701 Concord Turnpike.
2002, 2006, 2011, 2016, 2021 (City Directories)	The subject property was not listed in the City Directories.
2003** (Aerial Maps)	The subject property has been cleared of all buildings and grass cover is depicted throughout the site; however, a small building or shed structure appears to be located on the southwestern boundary of the site adjoining the railroad.

Year (Source)	Use
2006, 2009** (Aerial Maps)	The subject property has been cleared of all buildings and grass cover is depicted throughout the site.
2014** (Aerial Maps)	Structures, gravel and stockpiled materials are located on the northern portion of the site. There appears to be entranceways onto the site via Garnet Street near the western corner and via Concord Turnpike on the northwestern boundary.
2015, 2018** (Aerial Maps)	The Garnet Street and Concord Turnpike entranceways remain visible; however, the structures are no longer depicted and some of the stockpiles were removed.
2016 (Topographic Maps)	No structures are depicted on the subject property.

* Note: The location of subject property's boundary depicted on the map is most likely incorrect relative to the map.
** Note: These maps were noted to have quality issues including unmapped areas, poor resolution, or cloud/tree cover obstructions.

The subject property has been in operation as a foundry for over 110 years and as industrial use for over 135 years. An overlay of the 1967 Sanborn map was added to Figure 4 to illustrate the relative location of operation as the Foundry. First developed use could not be determined; however, the southern portion of the site in 1885 was used as storage for a planing mill and a sumac mill. Richmond and Alleghany rail line spurs were depicted south of the mills on-site. From 1890 until 1895, Lynchburg Spoke Works operated on the northern portion of the site. The first use of the site as a foundry was 1902 as the Lynchburg Plow Co., and then from 1907 until the early 1990s as the Lynchburg Foundry Co. Foundry activity is associated with air pollutants such as benzene and hazardous waste products that can include heavy metals, cyanides and phenolics. The foundry property also included a blacksmith area, chemical engine, and laboratory with associated hazardous contaminants. Use of the former rail spur also has the potential to impact the subject property. The site was used for industrial purposes as the Intermet Corporation site in the 1990s and cleared in the early 2000s and has since been used for storage of stockpiled construction materials.

The oil house depicted at the northeastern boundary at the central portion of the site along Concord Turnpike (1965 FIMs until 1973 FIMs) has potential to impact the subject property from a former undocumented release. The oil house pre-dates regulatory requirements for registration and spill prevention. No documentation of oil tank removal on-site was identified.

A potential for impact exists to the subject property due to the length of use as a rail spur line on-site (1951 FIMs until 1973 FIMs) and potential use and undocumented release(s) of hazardous substances and/or petroleum products associated with railroad activities. As previously discussed in Section 4.2, residual soil impact was documented in this area. These impacts may include but are not limited to: wood-treating chemicals including creosote from railroad ties; spilled or leaked oil, gasoline, or diesel fuel; residual herbicides; fossil fuel combustion products such as polynuclear aromatic hydrocarbons (PAHs) from the diesel exhaust; arsenic from herbicides, wood preservatives, and fossil fuel combustion; transformers and capacitors used in trail controls; and mercury from combustion or leaking gauges.

4.4.2 Historical Use – Adjacent Properties

The James River and the CSX Railroad were the primary entities adjacent to the property from the 1800s to the present day. The following information summarizes historical adjacent property use. Select noted properties are identified on Figure 2.

North and East

Concord Road parallels the northeast boundary of the subject property in the 1885 Sanborn map, and northeast of the road is the planing mill and sumac mill on the James River, opposite the southern portion of the subject property. The mills appear closed after the 1895 Sanborn Map. The remnant foundation of the mills are depicted in the 1902 Sanborn Map. From 1907 until 1973 Sanborn maps, no development is depicted opposite Concord Turnpike between the James River. Some structures are visible opposite Concord Turnpike from the site in the 1982 and 1994 Aerials, however the resolution is poor and details are indiscernible.

The northernmost tip of the property abuts the former Baltimore United (changed to Standard) Oil Co. from 1890 until 1951 Sanborn Maps. Four gas tanks and two oil tanks were depicted on the 1951 Fire Insurance Map. From 1955 until 1973 the northern property across Garnet Street was the Lynchburg Foundry Company complex, which included a testing lab, annealing building, and storage building. The oil and gas tanks were not depicted on the property after the 1955 Sanborn Maps. The tanks pre-date regulatory requirements for registration and spill prevention. No documentation of oil tank removal on-site was identified.

South and West

The James River and Kanawha Canal parallels the southwest boundary of the subject property in the 1890 Sanborn map, and northeast of the canal is the Chesapeake and Ohio Railroad tracks. The canal appears to have been shortened in 1951 such that the adjacent property was now the Chesapeake and Ohio Railroad, and it disappeared entirely in the 1955 Sanborn map.

Activity from trains or other equipment supporting the railroad line may produce contaminants including petroleum and heavy metals, which may enter the subject property in the form of stormwater runoff, airborne particulates, or undocumented leaks and spills. The railroad is identified as a REC due to its proximity to the subject property with no barriers between the railroad and subject property to obstruct impacts from hazardous substances or petroleum products.

The southernmost tip of the subject property abuts a building operated under the Mead Corporation (paper stock) complex based on Sanborn maps covering a period from 1955 to 1973. Aerial maps covering a period from 1947 to 2018 confirm this observation. Multiple spills listing and reported leaking tanks were recorded for this property (under WestRock Converting Company and Rock-Tenn Company). This property is associated environmental risks are discussed in Section 4.1.

4.4.3 Historical Use – Vicinity Properties

Based on historical topographic maps, aerial photographs, and tax parcel information, residential area was developed and expanded west and south of the subject property while industry expanded on the north and east of the subject property. A few commercial businesses also were developed, primarily northwest of the subject property. Select noted properties are identified on Figure 2.

North

Vicinity properties north of the subject property historically included industrial activity. Sanborn maps from 1890 show the J. T. Yates Cooperage, J.H. Kinnier Coal, Wood, and Ice Company, and Lynchburg Iron Company beyond. Oil tanks and coal sheds were associated with some of these industries, and petroleum products and coal particulates could pose an environmental hazard if spillage occurred for which no regulatory oversight existed at the time. A lumber company came into existence north of the subject property following the coal company.

There is a potential for residual air particulates on the subject property from these off-site sources. Regulatory databases do not indicate any environmental concerns for these vicinity properties; however, these databases do not extend beyond recent years.

East

The eastern vicinity property has been the James River since the 1885 Sanborn Maps until present. An approximately half-mile long island in the river has been used for industrial purposes since 1885 Sanborn Maps, with the Norfolk and Western rail line depicted connecting the western side of the River to the eastern side.
There is a potential for residual air particulates on the subject property from these off-site sources. Regulatory databases do not indicate any environmental concerns for these vicinity properties; however, these databases do not extend beyond recent years.

South

The southern vicinity of the subject property operated as the J. H. Heald Company's Bark Extract works based on the 1885 to 1907 Sanborn Maps. The company then became the Mead Corporation (paper stock) complex based on Sanborn maps covering a period from 1951 to 1973. Aerial maps covering a period from 1947 to 2018 confirm this observation. Multiple spills listing and reported leaking tanks were recorded for this property (under WestRock Converting Company and Rock-Tenn Company). This property's associated environmental risks are discussed in Section 4.1.

West

The western vicinity of the subject property was primarily industrial based on Sanborn maps covering a period from 1890 to 1973. A building is depicted in the 1902 Sanborn Map beyond the Chesapeake and Ohio railroad and the canal, connected by a bridge to the subject property. Oil tanks in the corner where the building extension meets the southern main wall on the southern end of the property first appeared in the 1951 Sanborn map and subsequent Sanborn maps. The oil tanks appear to be on railroad property. This property's associated environmental risks are discussed in Section 4.1.

An electrical substation was constructed approximately 500 feet west of the subject property by 1967 based on the associated Sanborn map. Because PCBs had not been banned at the time of its construction, the electrical substation might pose an environmental risk. Buildings and rail are located between the electrical substation and the subject property and may therefore obstruct surface runoff.

5.0 SITE RECONNAISSANCE

Draper Aden Associates performed the Phase I ESA site reconnaissance on January 14, 2021. The assessed subject property and adjoining properties observed from the property boundary are depicted in Figure 2. Representative photographs of the subject property are presented in Appendix A.

5.1 Methodology and Limiting Conditions

Methodology: Field observations were documented systematically. Because of its narrow shape, field personnel observed the property by walking from the northern end where the building is located to the southern end and returning along the same path. Field personnel then assessed stored materials and discarded debris on-site. After completing observations on the subject property, field personnel observed conditions at adjacent properties from the right-of-way or property line.

Limiting Conditions: A portion of the subject property was overgrown with vegetation and not all areas could be observed in their entirety. A majority of the site was covered with grass, which could obscure spill marks, and precipitation had recently occurred in the area, which may also obscure signs of spills.

5.2 General Site Setting

The site is accessible from Garnet Street and Concord Turnpike. Chain-link fencing was observed around a small portion of the northern part of the subject property; however, the gated entranceways were open and accessible.

5.3 Exterior Observations

5.3.1 Chemical Storage Areas (excluding storage tanks and drums)

No exterior chemical storage areas were observed.

5.3.2 Underground or Aboveground Storage Tanks

No ASTs or USTs were observed. No vent pipes, fill pipes or access ways indicating the presence of a UST were observed.

5.3.3 Odors

No strong, pungent or noxious odors were noted.

5.3.4 Pools of Liquid

No pools of liquid were observed on the subject property.

5.3.5 Drums

No drums were observed on the subject property.

5.3.6 Polychlorinated Biphenyls (PCBs)

No transformers or other features potentially containing PCBs were observed.

5.3.7 Subsurface Structures (excluding storage tanks, wells and septic systems)

Former pipe penetrations (possibly former bollards) were observed at the eastern central portion of the site along Concord Turnpike (See photograph 14, Appendix A). Manhole covers and cut piping from unknown subsurface structures (likely stormwater manhole and cut fence post) were also observed at the eastern central portion of the site along Concord Turnpike (See photograph 15, Appendix A).

5.3.8 Waste Disposal Areas

A dumpster containing wood debris was observed on the east-central portion subject property. Indication of mounded construction materials such as stockpiled soil, stone, brick, and other construction debris was observed on site.

5.3.9 Pits, Ponds, or Lagoons

No pits, ponds or lagoons were observed.

5.3.10 Stained Soil or Pavement

No obvious stained soil or pavement was observed.

5.3.11 Staining or Corrosion

No obvious staining or corrosion was observed.

5.3.12 Stressed Vegetation

No stressed vegetation was observed; however, based on the time of year that the reconnaissance was conducted, vegetation is generally dormant, limiting the ability to assess the current status of vegetation on-site.

5.3.13 Wells and Septic Tanks

No wells or septic tanks were observed.

5.4 Asbestos-Containing Materials (ACM) and Lead-Based Paint (LBP)

An ACM and LPB survey was not performed as part of this assessment.

5.5 Adjacent Properties

The conditions of adjacent properties were observed from the subject property boundaries and public right-of-way. The properties surrounding the subject property are as noted in Section 2.5. The CSX Railroad track borders the subject property on the southwest boundary of the property, and Concord Turnpike borders the subject property on the northeast boundary of the property (Appendix A).

The CSX railroad track is immediately adjacent and up-gradient from the subject property; therefore, any contaminants in stormwater runoff would flow directly onto the subject property. However, given that the railroad track is immediately adjacent to the subject property, and no vegetative or physical barriers are between the tracks and subject property, it is possible that contaminants in stormwater and the air can migrate from the tracks onto the subject property given the proximity. Railroad activity along the southern boundary of the property and likely impact to the subject property is considered an REC.

Concord Turnpike along the northeast boundary of the subject property is slightly down-gradient from the subject property. Beyond the road are gravel pull-off areas with vegetative barrier between the road and James River. Since the subject property is within the hazard area where a 0.2% annual chance of flooding can occur, migration of contaminants from the river and deposition on-site occurs.

No pits, ponds, lagoons, or pools of liquid were observed, and no other environmental issues were observed from the subject property boundaries or from the public right-of-way to indicate impact from the adjacent properties to the subject property. Oil tanks were stored on the adjacent property as described in Section 4.4.2, but no tanks or obvious indications of spills were observed on the subject property. The northern portion of the site is littered with debris and old vegetation, however, which obscured the ground from visual view.

5.6 Vicinity Properties

As discussed in Section 4.4.3, an electrical substation was observed approximately 500 feet west of the subject property. The substation was constructed between 1965 and 1967 based on Sanborn maps from those years. Because PCBs had not been banned during this time frame, the electrical substation is upgradient from the subject property, and the topography suggests that runoff and groundwater can migrate from the electrical substation to the subject property, the

subject property might receive PCB impact from the electrical substation. However, buildings and railroad tracks are located between the electrical substation and the subject property and may obstruct surface runoff. This vicinity property is considered a potential REC (i.e., not a REC), based on available information at this time.

An AST was also observed on former Lynchburg Foundry property opposite Garnet Street, and the ERIS Database Report notes that the AST is still active. The subject property is downgradient from the AST and contaminant migration from a release would be likely to impact the subject property.

6.0 INTERVIEWS

Draper Aden Associates conducted interviews, provided questionnaires, and/or requested information from the current property owner and local government officials as noted below. Interview documentation is summarized below and presented in Appendix B.

6.1 Current Property Owner

Draper Aden Associates received an ASTM-compliant User Questionnaire from Ms. Marjette Upshur, Director of the City of Lynchburg's Economic Development Authority, on February 2, 2021. Ms. Upshur indicated that the City purchased the property in 2009 from the Lynchburg foundry and was unaware of specific use by the foundry. A copy of the Questionnaire is included in Appendix B.

6.2 Local Government Officials, User, and Key Site Manager

Interviews beyond the completion of the User questionnaire were not conducted as part of this assessment. This data gap is not considered significant at this time, however, additional information may clarify historical site activities.

6.3 Past Property Owner

The previous property owner (prior to ownership by the Economic Development Authority of the City of Lynchburg) is Lynchburg Foundry Company. An attempt was made to locate the former foundry's contact information, but this information was not obtained. Sufficient historical resources are available for review, so this data gap is not considered significant at this time.

7.0 FINDINGS, OPINIONS, AND CONCLUSIONS

7.1 Findings, Opinions and Conclusions

The results of this assessment represent a review of current conditions based on reasonably ascertainable information and limited observations. A finding of a recognized environmental condition (as defined by the ASTM standard and detailed in the limitations section of this report) does not imply that an impact actually exists but that more information may be warranted.

Draper Aden Associates performed this Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 for the subject property at 1651 Concord Turnpike (Parcel ID 04720005) in Lynchburg, Virginia. Any exceptions to, or deviations from, this practice are described in Section 8.0 of this report. This assessment has revealed no evidence of RECs in connection with the subject property except for the following:

7.1.1 Recognized Environmental Conditions

(Subject Property)

- The historical record supports that the subject property operated as foundry, including the Lynchburg Foundry Co., for approximately a century. No documented releases at the subject property were confirmed as part of this assessment. However, documentation reviewed as part of this assessment indicated long-term industrial operations that include storage, handling, and disposal of hazardous chemicals and petroleum products. The potential for likely undocumented historical releases or impact to the subject property from historical operations/improper handling and or disposal through on-site drains or other areas resulted in the finding of a REC. Additionally, the portions of the site may include fill from unknown sources. The regulatory record also identified petroleum impact (2010) at off-site locations that may have originated from releases on or near the subject property. This documented 2010 petroleum release received regulatory closure without further action, however, the 2010 assessment did not include the subject property.

- The presence and nature of releases on adjacent properties and vicinity properties (discussed below) support that a Vapor Encroachment Condition (VEC) as defined by ASTM exists for this site. Subsurface impact, if present from on or off-site sources, may also result in a vapor intrusion condition for future redevelopments.

- Likely impact to the subject property from historical rail line use on and near the site (see below for additional information).

(Adjacent and Vicinity Properties)

- A closed pollution complaint filed in 2010 of petroleum seepage on CSX property adjacent to and southwest of the subject property also indicates a REC on or adjacent to the subject property (noted above). Possible sources of the petroleum cited by the site characterization report include the former ASTs located on the southwest end of the warehouse building, and a pipe that may have connected the ASTs at the warehouse building to a 20,000-gallon UST on former Lynchburg Foundry property. Given the proximity of the release, potential sources of petroleum, and residual constituents of concern after regulatory closure, a REC exists. This pollution complaint was not considered an HREC due to the potential for impact to the subject property (as concluded in the 2010 site characterization report).

- Activity from the adjacent railroads can produce contaminants such as petroleum, PCBs and heavy metals, which can migrate onto the subject property through stormwater runoff. Railroad activity along the southwest boundary of the subject property has existed for at least 130 years and occurs immediately adjacent to the subject property. Insufficient vegetative cover that would obstruct flow onto the subject property coupled with steep topography would result in the likely migration of airborne and stormwater contaminants onto the subject property, resulting in a REC. No documented releases beyond the 2010 incident noted above that received regulatory closure were identified as part of this assessment.

- The WestRock Converting Company (formerly Rock Tenn Company, Rock Tenn Lynchburg Mill, and Seven Hills Paperboard) located at 1801 Concord Turnpike is located cross-gradient with respect to groundwater flow and topographically downgradient with respect to surface flow. Based on the topographic downgradient relation to the subject property, a release from this facility is not expected to impact the subject property. However, vapor encroachment from a release and/or spills at this facility cannot be eliminated based on the number of spills listings (i.e. dumping chemical and materials) and likelihood for undocumented releases at the facility. Although all 26 spills listings and LST for the facility location are closed, regulatory closure does not preclude that a site may be reopened in the future should new data become available. Additionally, documentation of a landfill on this adjacent property was noted, however the exact location is unknown.

7.1.2 Findings (not considered RECs)

The following findings were identified during this assessment but are not considered RECs at this time.

Subject property.

- Apparent construction materials such as stockpiled soil, stone, brick, and other construction debris were observed stockpiled on site.
- A FOIA request was made to EPA in an effort to obtain regulatory records related to the site's federal permitting and federally driven regulatory activities. A response was not received at the time this assessment was completed. This information would be valuable for planning if Phase II ESA efforts are pursued.

Adjoining/Vicinity property.

- Oil tanks located on the southern end of the southwestern adjoining property's building, likely railroad property, were seen on multiple Sanborn maps starting in 1951. Although no tanks or obvious spills were observed during the site reconnaissance, no recorded history of tank management is available. The potential impact from undocumented releases onto the subject property cannot be eliminated.

- An active electrical substation located approximately 500 feet west and up-gradient to the subject property has existed since 1967. Given these factors, there is a potential for PCB impact to the subject property from this off-site source. Surface runoff or groundwater might migrate to the subject property, although surface runoff can be obstructed by the building and railroad tracks between the substation and subject property.

- Historical nearby foundry activity may have dispersed airborne pollutants onto the subject property. Due to the proximity of the foundry to the subject property and the known environmental contaminants produced by foundries, the potential for impact from this off-site source cannot be eliminated.

- Multiple properties located west, northwest, southwest of the subject property might pose environmental risks due to reported leaks in USTs or ASTs on these vicinity properties, and because these properties potentially lie up-gradient with respect to the subject property. The potential for impact to the subject property from these off-site sources is considered low because of the distance from the subject property and closed nature of the listings along with the presence of vegetative and physical barriers that would obstruct surface flow; however, the risk cannot be fully eliminated. It should be noted that regulatory site closure does not preclude the sites could be re-opened by the regulatory agency in the future.

7.1.3 Historical Recognized Environmental Condition (HREC)

No HRECs, as defined by the ASTM Standard (see Section 8.0), were observed.

7.1.4 Controlled Recognized Environmental Condition (CREC)

No CRECs, as defined by the ASTM Standard (see Section 8.0), were observed.

7.1.5 *De Minimis* Conditions

Trash and debris were found on the subject property during the site reconnaissance.

7.2 Data Gaps

- Data gaps in the regulatory record were identified including a lack of documentation regarding former site operations. A significant number of industrial operations occurred prior to required reporting and documentation of site petroleum and chemical practices. Some documentation of petroleum storage and chemical usage can be inferred from the nature of operations and based on the historical record. This data gap is considered significant and contributed to the finding of a REC for the site.

- Some portions of the property, particularly the south portion of the property land, was overgrown with grass at the time of the site reconnaissance, and the ground could not be observed in their entirety. In addition, a line of trees extended along the southwest tip, obstructing that portion of the property as well as the adjacent property. However, sufficient historical resources were available for review, so this data gap is not considered significant at this time.

- Various interviews were not conducted as part of this assessment. However, historical resources such as Sanborn maps were available for review to contribute to the finding of a REC based on prior site use, so this data gap is not considered significant at this time.

- The location of former operations including the location of petroleum and chemical storage was inferred from the historical record. Similarly, the location of off-site/adjacent operations and activities were inferred from the historical or regulatory record or site observations. In some instances, the location of certain activities is unknown, such as the location of the referenced landfill associated with the adjacent WestRock facility. These data gaps are considered significant and contributed to the finding of RECs as noted above.

- First developed use and in some instances, sources could not be identified at 5-year increments as required by the ASTM 1527-13 standard. However, this data gap is not considered significant based on information reviewed as part of this assessment.

8.0 LIMITATIONS AND EXCEPTIONS

Draper Aden Associates prepared this document in accordance with generally accepted standards of environmental practice, and in general accordance with the scope and limitations of the ASTM E1527-13: *Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Process*. The conclusions presented in this report are professional opinions based on data described in this report, and are intended only for the purpose, site location, and project indicated. The conclusions presented in this report are based on the assumption that site conditions do not deviate from those observed during the study and described in this report. This report is not an exhaustive study of potential environmental impact at the site and should not be interpreted as such. An evaluation of subsurface soil and groundwater conditions, radon, wetlands assessment, or historical building evaluation was not performed as part of this assessment. Select ASTM definitions are provided below:

- *controlled recognized environmental condition (CREC)*—a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

- *historical recognized environmental condition (HREC)*—a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a historical recognized environmental condition, the environmental professional must determine whether the past release is a recognized environmental condition at the time the Phase I Environmental Site Assessment is conducted.

- *de minimis condition*—a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis conditions are not recognized environmental conditions nor controlled recognized environmental conditions.

- *business environmental risk*—a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental

issues required to be investigated in a standard ASTM Phase I Environmental Site Assessment.

This report has been prepared for the subject property pursuant to an agreement with the EDA and is accurate to the best of Draper Aden Associates' knowledge and belief. This report is based, in part, on unverified information supplied to Draper Aden Associates by third-party sources. While efforts have been made to substantiate this third-party information, Draper Aden Associates cannot guarantee its completeness or accuracy.

It is the responsibility of the client to notify the appropriate federal, state and/or local government agencies of our findings, as may be required by law.

8.1 Scope of Services

Draper Aden Associates provides this Phase I ESA in accordance with our general Scope of Services for Environmental Site Assessments. This includes the Phase I ESA, which generally consists of historical data and regulatory agency file records. Interviews with the User and state and/or local officials were conducted. A reconnaissance of the subject property was also conducted. On completion of this review, the data are evaluated and a written report prepared documenting the investigative activities. Findings and recommendations for additional assessment are included, if warranted. Subsurface or surface sampling, and asbestos, vapor intrusion, radon gas and lead-based paint evaluations are not conducted during the Phase I effort, unless specifically requested by the client.

8.2 Terms and Conditions

Draper Aden Associates has provided this Phase I ESA in accordance with the terms and conditions noted above.

8.3 User Reliance

The Phase I ESA is designed to assist the User, as defined by ASTM E1527-13, in developing information about the environmental conditions of a property. This Phase I ESA is site-specific and relates to the assessment of environmental conditions at the subject property only. No Phase I ESA can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. This Phase I ESA is intended to reduce, but not eliminate, uncertainty regarding the potential for environmental conditions.

8.4 Deviations

Draper Aden Associates conducted this ESA in general accordance with ASTM Practice E1527-13. Deviations from the standard practice are described, where necessary, within the report. Limiting conditions that are considered Data Gaps are listed in Section 7.0. Other identified limiting conditions are detailed in Section 5.0.

8.5 Additional Services

No additional services were performed by Draper Aden Associates as part of this assessment.

9.0 REFERENCES

Site Visit: January 14, 2021
Non-responsive based on revised scope., Project Environmental Scientist, Draper Aden Associates

References Cited:

1. ASTM E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. 2013.
2. City of Lynchburg. ParcelViewer. https://mapviewer.lynchburgva.gov/ParcelViewer/. Accessed January 12, 2021.
3. Environmental Risk Information Services (ERIS). *Former Intermet Site / Former Lynchburg Foundry, 1651 Concord Tnpk., Lynchburg, VA 24604, Inquiry Number 21011400124:*
   - *ERIS City Directory, Inquiry Number 21011400124.* January 19, 2021.
   - *ERIS Database Report, Inquiry Number 21011400124.* January 16, 2021.
   - *ERIS Fire Insurance Maps, Inquiry Number 21011400124.* January 14, 2021.
   - *ERIS Historical Aerials, Inquiry Number 21011400124.* January 18, 2021.
   - *ERIS Physical Setting Report, Inquiry Number 21011400124.* January 15, 2021.
   - *ERIS Topographic Maps, Inquiry Number 21011400124.* January 14, 2021.
4. Virginia Department of Environmental Quality's Virginia Environmental Geographic Site. Available online at https://apps.deq.virginia.gov/mapper_ext/. Accessed January 12, 2021.
5. Virginia Division of Geology and Mineral Resources. Interactive Geologic Map. https://www.dmme.virginia.gov/webmaps/DGMR/. Accessed January 12, 2021.
6. Brown, William R. 1958. *Bulletin 74: Geology and Mineral Resources of the Lynchburg Quadrangle, Virginia*. Charlottesville, VA: Virginia Department of Conservation and Development, Division of Mineral Resources.

Interviews:

- Non-responsive based on revised scope., via User Questionnaire adapted from ASTM 1527-13 received February 2, 2021.

- Signature of Environmental Professionals

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10(b) of 40 CFR 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries, or have directly supervised the activities of the all appropriate inquiries, by Draper Aden Associates staff in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared by:

Name: Non-responsive based on revised scope. Environmental Scientist

Signature: Non-responsive based on revised scope. Non-responsive based on revised scope.

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Signature: Non-responsive based on revised scope. Non-responsive based on revised scope. Non-responsive based on revised scope. Non-responsive based on revised scope. Non-responsive based on revised scope. Non-responsive based on revised scope.

Virginia Professional Geologist Certification and Number: VA PG 1782

Third Party Review:

Name: Non-responsive based on revised scope. Program Manager II

Signature: Non-responsive based on revised scope. Non-responsive based on revised scope. Non-responsive based on revised scope. Non-responsive based on revised scope. Non-responsive based on revised scope. Non-responsive based on revised scope.